

IN THE CLAIMS

Please amend the claims as follows:

1-7. (Cancelled)

8. (Currently Amended) ~~The method of claim 7~~ A method of testing at least one embedded device under test (DUT) comprising:

determining a test configuration parameter set comprising predefined DUT test sequence rules;

determining a first data set comprising input test vectors based on the test configuration parameter set;

processing the first data set in a DUT model to determine output test vectors wherein the output test vectors comprise DUT model generated responses to the input test vectors;

processing the first data set and the output test vectors, comprising:

parsing the output test vectors with the first data set in accordance with a predefined timing reference in which the predefined timing reference determines a point in time to sample an output test vector as a stabilised output test vector; and

matching each stabilised output test vector to form pairs of stabilised input and output test vectors to determine a second data set comprising pairs of stabilised input and output test vectors;

communicating the stabilised input test vectors to at least one DUT via a DUT independent interface so that the at least one DUT is stimulated by the stabilised input test vectors to produce DUT output vectors;

determining a third data set comprising the stabilised input vectors and corresponding DUT output vectors; and

comparing the third data set with the second data set to determine a comparison of actual behaviour to modelled behaviour of the at least one DUT;

wherein the predefined timing reference is derived from a ~~logical connection port as~~
~~claimed in claim 1:~~ logical connection port adapted to indicate a predefined timing reference for
determining a point in time at which to sample an output vector as the corresponding output
vector in an input/output vector pair.

9. (Currently Amended) The method ~~as claimed in~~ of claim [[6]] § wherein the DUT independent interface comprises an interprocess communication protocol utilising one of:

TCP/IP;

Active-X; and

a serial communications standard.

10. (Currently amended) The method of claim [[6]] § wherein the DUT model comprises one or more of the following abstraction techniques:

architectural level descriptions;

data type definitions;

state transition diagrams; and

extended Message Sequence Charts.

11. (Currently amended) The method of claim [[6]] § wherein the data set comprises test vector formatted files.

12. (Currently amended) The method of claim [[6]] § wherein the test configuration parameter set comprises a test parameter configuration file.

13. (Currently amended) ~~The method of claim 8~~ A method of testing at least one embedded device under test (DUT) comprising:

determining a test configuration parameter set comprising predefined DUT test sequence rules;

determining a first data set comprising input test vectors based on the test configuration parameter set;

processing the first data set in a DUT model to determine output test vectors wherein the output test vectors comprise DUT model generated responses to the input test vectors;

processing the first data set and the output test vectors to determine a second data set comprising pairs of stabilised input and output test vectors;

communicating the stabilised input test vectors to at least one DUT via a DUT independent interface so that the at least one DUT is stimulated by the stabilised input test vectors to produce DUT output vectors;

determining a third data set comprising the stabilised input vectors and corresponding DUT output vectors;

comparing the third data set with the second data set to determine a comparison of actual behaviour to modelled behaviour of the at least one DUT;

wherein the DUT comprises one or more of:

a smoke or fire detector;

a security device;

a medical device;

a biological tissue processing device; and

an industrial process device.

14. (Currently amended) ~~Apparatus~~ An apparatus adapted to test at least one embedded device (DUT), said apparatus comprising:

a processor means adapted to operate in accordance with a predetermined instruction set, said apparatus, in conjunction with said instruction set, being adapted to perform the method steps as defined in claim 6. a method of testing at least one embedded DUT comprising:

determining a test configuration parameter set comprising predefined DUT test sequence rules;

determining a first data set comprising input test vectors based on the test configuration parameter set;

processing the first data set in a DUT model to determine output test vectors wherein the output test vectors comprise DUT model generated responses to the input test vectors;

processing the first data set and the output test vectors to determine a second data set comprising pairs of stabilised input and output test vectors;

communicating the stabilised input test vectors to at least one DUT via a DUT independent interface so that the at least one DUT is stimulated by the stabilised input test vectors to produce DUT output vectors;

determining a third data set comprising the stabilised input vectors and corresponding DUT output vectors; and

comparing the third data set with the second data set to determine a comparison of actual behaviour to modelled behaviour of the at least one DUT.

15-24. (Cancelled)

25. (Currently amended) A computer program product, ~~comprising:~~ tangibly stored on a machine-readable medium,

~~a computer usable medium having computer readable program code and computer readable system code embodied on said medium for testing at least one embedded DUT device under test (DUT) within a data processing system, said computer program~~ the product comprising[[:]] instructions operable to cause a processor to:

~~computer readable code within said computer usable medium for performing the method of claim 6.~~

determine a test configuration parameter set comprising predefined DUT test sequence rules;

determine a first data set comprising input test vectors based on the test configuration parameter set;

process the first data set in a DUT model to determine output test vectors, wherein the output test vectors comprise DUT model generated responses to the input test vectors;

process the first data set and the output test vectors to determine a second data set comprising pairs of stabilised input and output test vectors;

communicate the stabilised input test vectors to at least one DUT via a DUT independent interface so that the at least one DUT is stimulated by the stabilised input test vectors to produce DUT output vectors;

determine a third data set comprising the stabilised input vectors and corresponding DUT output vectors; and

compare the third data set with the second data set to determine a comparison of actual behaviour to modelled behaviour of the at least one DUT.

26. (Original) A computer readable data storage medium including the computer program claimed in claim 25 stored thereon.

27-28. (Cancelled)

29-38. (Cancelled)